

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Gregory C. Volgas et al.

Application No.: 10/784,343

Confirmation No.: 2346

Filed: February 23, 2004

Art Unit: 1616

For: MANUFACTURE AND USE OF A
HERBICIDE FORMULATION

Examiner: A. N. Pryor

**SUBSTITUTE APPEAL BRIEF AND
RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on January 19, 2010, and is in furtherance of said Notice of Appeal. This Brief is being filed in response to Notice of non-compliant Appeal Brief mailed April 15, 2010.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

HELENA HOLDING COMPANY

II. RELATED APPEALS AND INTERFERENCES

There is a related appeal that was filed in U.S. Serial No. 09/916,611 (“ ‘611 application”). However, the Board has not yet rendered a Decision in the ‘611 application.

The ‘611 application is the parent application of this application. There are no interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board’s decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 12 claims pending in application.

B. Current Status of Claims

1. Claims canceled: 1-90 and 92-93

2. Claims withdrawn from consideration but not canceled: 0

3. Claims pending: 91 and 94-104

4. Claims allowed: 0

5. Claims rejected: 91 and 94-104

C. Claims On Appeal

The claims on appeal are claims 91 and 94-104.

IV. STATUS OF AMENDMENTS

Applicant did not file an Amendment After Final Rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claims on appeal are claims 91 and 94-104. These claims stand or fall together. Claims 91, 96, 98 and 104 are the only independent claims. Claim 91 states:

91. A microemulsion-forming-concentrate **consisting of** a herbicide compound in acid form and at least one surfactant, wherein the concentrate can be combined with water to form a microemulsion wherein the herbicide in the acid form is 2,4-dichlorophenoxyacetic acid or dicamba acid or a mixture thereof and wherein said surfactant consists of

Alcohol alkoxylate,

Alcohol alkoxylate sulfate,

Alkylphenol alkoxylate,

Alkanolamide,

Alkylaryl sulfonate,

Amine oxide,

Betaine,

Block polymers of ethylene and propylene oxide,

Carboxylated alcohol or alkylphenol alkoxylate,

Diphenyl sulfonate,

Ethoxylated amine,

Ethoxylated fatty acid,

Ethoxylated fatty ester and oil,

Ethylene carbonate,

Fatty ester,

Glycerol ester,

Phosphate ester surfactant,

1 Sarcosine,
2 Sorbitan,
3 Sucrose,
4 Glucose,
5 Sulfate of alkoxylated alkylphenol ,
6 sulfonate of alkoxylated alkylphenol,
7 Sulfate of alcohol or

8 Tristyrylphenol Alkoxylate. Support for the term microemulsion can be found in
9 examples 1, 2, 4 and 7 which are microemulsions and are very similar to the
10 examples cited in U.S. Patent No. 6,803,345 ("Herold"), support for the
11 herbicide (2,4-dichlorophenoxyacetic acid or dicamba acid or a mixture
12 thereof) in the acid form can be found in the specification at page 4, lines 11-
13 12, page 5, lines 1-5 and in examples 1, 2, 4 and 7; support for the surfactant
14 can be found in the specification at page 6, line 8 through page 8, line 9.

15
16 96. A microemulsion-forming-concentrate consisting of a herbicide compound in acid form
17 and at least one surfactant, wherein the concentrate can be combined with water to form a
18 microemulsion wherein the herbicide in the acid form is 2,4-dichlorophenoxyacetic acid or
19 dicamba acid or a mixture thereof and wherein said surfactant is selected from the group
20 consisting of C₁₁ alcohol (3EO) ethoxylate, nonylphenol (6EO) ethoxylate, polyoxyethylene (20)
21 sorbitan monolaurate, C₁₁ alcohol (6EO) ethoxylate phosphate ester and mixtures thereof.

22 Support for the term microemulsion can be found in examples 1, 2, 4 and 7

1 which are microemulsions and are very similar to the examples cited in U.S.
2 Patent No. 6,803,345 ("Herold"), support for the herbicide (2,4-
3 dichlorophenoxyacetic acid or dicamba acid or a mixture thereof) in the acid
4 form can be found in the specification at page 4, lines 11-12, page 5, lines 1-5
5 and in examples 1, 2, 4 and 7; support for the surfactant can be found in the
6 specification at page 6, line 8 through page 8, line 9 and the specific
7 surfactants disclosed are in examples 1, 2, 4 and 7.

8 98. A microemulsion-forming-concentrate consisting of a herbicide compound in acid form
9 and at least one surfactant, wherein the concentrate can be combined with water to form a
10 microemulsion wherein the herbicide in the acid form is 2,4-dichlorophenoxyacetic acid or
11 dicamba acid or a mixture thereof and wherein the concentrate consists of from about 25 to about
12 30 parts by weight 2,4-dichlorophenoxyacetic acid, and from about 70 to about 75 parts by
13 weight of said surfactant selected from the group consisting of a C₁₁ alcohol (3EO) ethoxylate,
14 C₁₁ alcohol (6EO) ethoxylate phosphate ester and mixtures thereof. Support for the term
15 microemulsion can be found in examples 1, 2, 4 and 7 which are
16 microemulsions and are very similar to the examples cited in U.S. Patent No.
17 6,803,345 ("Herold"), support for the herbicide (2,4-dichlorophenoxyacetic
18 acid or dicamba acid or a mixture thereof) in the acid form can be found in
19 the specification at page 4, lines 11-12, page 5, lines 1-5 and in examples 1, 2, 4
20 and 7; support for the surfactant can be found in the specification at page 6,
21 line 8 through page 8, line 9 and the specific surfactants disclosed are in

examples 1 and 7. The amount of surfactant being about 70 to 80 is disclosed at page 13, lines 9-15. The amount of about 75% would fall within this range and was copied from the Herold patent. The amount of the herbicide for 25% can be found in Example 8 and the amount of the herbicide for 30% can be found in the specification at page 13, lines 6-7.

104. A microemulsion-forming-concentrate **consisting of** a herbicide compound in acid form and surfactant, wherein the concentrate can be combined with water to form a microemulsion and wherein the herbicide in the acid form is 2,4-dichlorophenoxyacetic acid and said surfactant of

- Alcohol alkoxylate,
- Alcohol alkoxylate sulfate,
- Alkylphenol alkoxylate,
- Alkanolamide,
- Alkylaryl sulfonate,
- Amine oxide,
- Betaine,
- Block polymers of ethylene and propylene oxide,
- Carboxylated alcohol or alkylphenol alkoxylate,
- Diphenyl sulfonate,
- Ethoxylated amine,
- Ethoxylated fatty acid,
- Ethoxylated fatty ester and oil,
- Ethylene carbonate,
- Fatty ester,
- Glycerol ester,
- Phosphate ester surfactant,

1 Sarcosine,
2 Sorbitan,
3 Sucrose,
4 Glucose,
5 Sulfate of alkoxylated alkylphenol ,
6 sulfonate of alkoxylated alkylphenol,
7 Sulfate of alcohol or
8 Tristyrylphenol Alkoxyate.

9 **Support for the term microemulsion can be found in examples 1, 2, 4 and 7**
10 **which are microemulsions and are very similar to the examples cited in U.S.**
11 **Patent No. 6,803,345 (“Herold”), support for the herbicide (2,4-**
12 **dichlorophenoxyacetic acid or dicamba acid or a mixture thereof) in the acid**
13 **form can be found in the specification at page 4, lines 11-12, page 5, lines 1-5**
14 **and in examples 1, 2, 4 and 7; support for the surfactant can be found in the**
15 **specification at page 6, line 8 through page 8, line 9.**

16

17 VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

18 1. Claims 91 and 94-104 were rejected under 35 U.S.C. 103(a) as being
19 obvious over US 5,558,806 (“Policello”).

20 VII. ARGUMENT

21 **A. Group I (Claims 91 and 94-104)**

22 1. Claims 91 and 94-104 were rejected as being obvious over Policello.

1 This application was filed to provoke an interference with Herold et. al.,
2 U.S. Patent No. 6,803,345 ("Herold"). The Examiner has acknowledged this in several of
3 the Office Actions including the last Final Office Action mailed September 18, 2009, in
4 the middle of page 8, of under the heading "Other Matters.

5 Claim 1 of Herold states:

6 1. A microemulsion-forming-concentrate comprising herbicide compound in acid
7 form and surfactant, wherein the concentrate can be combined with water to form a
8 microemulsion.

9 Herold, was published on August 7, 2003 and claims benefit to an earlier filing
10 date of September 26, 2001. The original Claim 104 was identical to claim 1 of Herold.
11 Claim 104 has subsequently been narrowed during the prosecution of this application.
12 Claim 91 corresponds to claims 1-3 of Herold. Since claim 92 uses closed language
13 "consisting of" and excludes any other ingredients, claim 92 encompasses claims 4 and 5
14 of Herold. Claim 93 corresponds to claim 6 of Herold. Claim 94 corresponds to claim 7
15 of Herold. Claim 95 corresponds to claim 8 of Herold. Claim 96 corresponds to claims 9-
16 11 of Herold. Claim 97 corresponds to claim 12 of Herold. Claim 98 corresponds to
17 claim 13 of Herold. Claim 99-103 corresponds to claims 21, 29, 30, 31, 32 and 33 of
18 Herold. Examples 1, 2, 4 and 7 were disclosed in the provisional application Serial No.
19 60/250,547 filed December 1, 2000. This is over 9 months before the provisional
20 application of Herold was filed.

21 The applicant respectfully requested that an interference be declared. The
22 applicant proposed that the count of the interference should be

23 (a) claim 1 of Herold or

1 (b) claim 1 of Herold or claim 91 of this application.

2 The applicant believes the claims 91-103 of this application would correspond to
3 count 1. The applicant believes that all the allowed claims of Herold, claims 1-13, 21-23
4 and 29-36 would correspond to count 1. None of the Herold's claims are patentably
5 distinct.

6 The applicant copied the claims and provided support in the second preliminary
7 amendment filed June 10, 2004.

8 The applicant's independent claims 91 and 104 claim a microemulsion-forming-
9 concentrate comprising herbicide compound (2,4-dichlorophenoxyacetic acid and/or
10 dicamba) in acid form and surfactant (specific ones being claimed), wherein the
11 concentrate can be combined with water to form a microemulsion.

12 The invention is drawn to a method for manufacture and use of a herbicidal
13 formulation of chlorinated carboxylic acid herbicides **in the acid form**. As disclosed in
14 the applicant's background of the invention,

15 [m]any agricultural formulations contain **water-soluble salts of**
16 **chlorinated carboxylic acid herbicides**. These salts, often alkylamine salts
17 or metal salts, **are generally not as active as their acid equivalents**. For
18 example, (2,4-dichlorophenoxy)acetic acid ("2,4-D") acid is known to be
19 more herbicidally active than the dimethylamine salt of 2,4-D.

20 . . .

21 **Another problem associated with the amine salts of some chlorinated**
22 **carboxylic acid herbicides is their inability to mix with fertilizers**. 2,4-D
23 amine herbicides cannot be mixed directly into Uran (urea-ammonia
24 nitrate) fertilizer **without some dilution in water**. This is a disadvantage

1 for applicators, since this dilution practice increase the total spray volume
2 they must apply per acre. (emphasis added) (see pages 1-3 of the
3 specification).

4
5 As stated above, it was recognized that the prior art uses chlorinated carboxylic acid
6 herbicides in the salt form. The applicant has found a way to use the more active chlorinated
7 carboxylic acid herbicides in the acid form preferably by dissolving the acid herbicide in a
8 surfactant. These formulations have shown superior herbicidal activity when compared to
9 standard salt and ester forms (see the abstract).

10
11
12 The key features of the applicant's claimed invention are

- 13
14 1. A microemulsion-forming concentrate **CONSISTING OF** a herbicide compound in the
15 acid form and at least one surfactant. **The claim uses closed language "consisting of".**
16
17 2. A microemulsion which is made by blending the herbicide compound in the acid form
18 with at least one surfactant.
19
20 3. A chlorinated carboxylic acid herbicide (2,4-dicholorphenoxy acetic acid and/or dicamba
21 in the acid form.

22 The first time the claims were rejected over Policello was January 31, 2008. None of
23 these features are present in Policello. Policello would not lead a person of ordinary skill in the
24 art to even investigate the solubility of the herbicide in the surfactant (regardless of the form of
25 the herbicide). Policello does not lead one of ordinary skill in the art to investigate the use of the
26 acid form of the phenoxy herbicides. Below is a table referring to the sections cited by the
27 Examiner at page 3 of the Office Action mailed January 31, 2008, for Policello along with the
applicant's comment about the particular section.

Abstract	<p>The abstract discloses the use of a surfactant blend and it's use as an adjuvant for pesticide formulations. The abstract provides no disclosure of phenoxy herbicides in any form. Nor does the abstract provide any indication of the claimed microemulsion. The surfactant blend requires a specific silicone surfactant (which is explicitly excluded from the applicant's claimed invention with the use of "consisting of" language and a second surfactant).</p>
Col. 2, line 21 - col. 4, line 27	<p>This section more fully describes the surfactant blend of the invention. The surfactants include a specific silicone surfactant (which is explicitly excluded from the applicant's claimed invention with the use of "consisting of" language and a second surfactant). The second surfactant is either an alcohol alkoxylate surfactant or an alkyl polyglucoside surfactant. This section provides no disclosure of phenoxy herbicides in any form. This section requires a specific silicone surfactant which is excluded from the applicant's claimed invention. Nor does this section provide any indication or a microemulsion.</p>
Col. 6, lines 26-42	<p>This section discloses the pesticides for which the invention is useful. The section discloses 2,4-D and dicamba along with several other growth regulators (see col. 6, line 26- col. 8, line 52). <u>Note that the usefulness of the surfactant blend is determined by the spreading of the foliarly applied pesticide spray (see Column 6, lines 18 – 24.</u> The surfactant blend is simply used as a spreader for foliar sprays of the listed pesticides.</p>

Col. 9, line 52 - col. 10, line 2	This section simply describes additional and optional components of the invention.
Example 4	This example provides no disclosure of phenoxy herbicides in any form. The surfactant blend in example 4 requires a silicone surfactant which is excluded from the applicant's claimed invention because of the "consisting of" language.

1

2 Policello at Col. 9, lines 19-23 and 32-36 describes the inclusion of the claimed surfactant
3 blend into general pesticide formulations and their further dilution with water.

4 This section provides no disclosure of phenoxy herbicides in any form.

5 A detailed discussion of the examples is as follows: Examples 1 – 4 discloses the
6 spreading characteristics of the surfactant blends which require a specific silicon surfactant
7 which is excluded from the applicant's claimed invention. These solutions do not contain any
8 pesticide or herbicide. It appears that Example 2 is missing or is described at col. 13, lines 29-
9 34.

10 Example 5 Employs the surfactant blend (which requires a specific silicon surfactant
11 which is **excluded** from the applicant's claimed invention) used as an additive for the separate
12 pesticide formulation known as Reflex®. The label for the product Reflex shows clearly that the
13 active ingredient *fomasafen* is in the **sodium salt form** (see Appendix B). However, referencing
14 back to the large laundry list of pesticides which the inventor claims, (See Column 8, lines 38 –
15 41), fomasafen is listed simply as fomasafen. In this laundry list, the inventor clearly did not see
16 the need to describe esters and salts of the actives because those would be obvious to one skilled
17 in the art.

Example 6 discloses compositions containing the claimed silicone surfactant blend (which require a specific silicon surfactant which is excluded from the applicant's claimed invention) and a mineral oil. Again, the purpose of the surfactant blend is to provide spreading. These compositions do not contain any pesticide or herbicide.

Clearly as stated above, Policello does not disclose the applicant's three required features.

1. The applicant's claimed invention requires consisting of language!

Policello requires the use of surfactant blend with requires polyalkylenoxide polysiloxane and a short chain hydrophobic moiety. Again, the applicant excludes the use of polyalkylenoxide polysiloxane surfactants by using "CONSISTING OF" language. For this reason alone this rejection must be withdrawn!

2. A microemulsion which is made by blending the herbicide compound in the acid form with at least one surfactant

Policello at col. 2, lines 2-11, defines the intended scope of the invention as:

"....provides for the acceptable **dispersion**, of pesticide actives without significantly interfering with the spreading capability....."

and

"....can more effectively **emulsify** water-insoluble agricultural products."

(emphasis added)

Policello teaches away from the applicant's claimed invention because Policello is trying to emulsify the water-insoluble (salt) agricultural products while the applicant is fully dissolving the acid herbicide in the acid form and not the salt form in the surfactant. For this reason alone,

1 the applicant believes Policello is not appropriate prior art and teaches away from the applicant's
2 claimed invention. There is no disclosure or teaching of the solubilizing of pesticide actives.

3
4 **3. A chlorinated carboxylic acid herbicide (2,4-dichlorophenoxy acetic acid and/or**
5 **dicamba in the acid form.**
6

7 Furthermore, the Examiner is focusing on prior art that taught the use of 2,4-D acid in
8 combination with a surfactant. The applicant does not believe that Policello teaches anything
9 about 2,4-D in the **acid form**.

10 Assuming arguendo, that Policello teaches ANYTHING about 2,4-D acid, there is still no
11 motivation to omit a solvent. Further enclosed in Appendix B is a copy of a Declaration
12 executed may 13, 2008 by Johnnie Roberts that was submitted in the parent application that
13 established that silicone surfactants according to Policello are unstable in the inherent acidic
14 conditions according to the applicant's claimed invention (see attached declaration in Appendix
15 B). As stated in paragraph no. 24 of the declaration. "... the acid herbicide would not be able to
16 fully dissolve in the silicone surfactant according to Policello, without significant degradation of
17 the silicon surfactant."

18 The following two examples of prior art that Examiner has previously considered:
19

- 20 1. AF-300 This formulation was what one of ordinary skill in the art would do
21 if his intention was to formulate a combination of 2,4-D acid and a surfactant. As
22 demonstrated in Johnnie Robert's declaration executed August 29, 2005, the
23 formulation experts at Nufarm had to employ a conventional solvent (petroleum
24 distillates) to dissolve the 2,4-D acid. They did not test higher and higher levels of

1 surfactant to try and dissolve the 2,4-D acid because to one of ordinary skill in the
2 art, that would make no sense.

3 2. Weedone 638 This formulation was disclosed in the applicant's
4 specification at page 2, lines 13-20. In this formulation, the surfactant again is
5 not sufficient to dissolve the 2,4-D acid. The 2,4-D ester and the petroleum
6 distillates are used to dissolve the 2,4-D acid. Again, the formulation experts at
7 the time did not try to raise the surfactant levels in this formulation to dissolve the
8 2,4-D acid. To one of ordinary skill in the art, that would have made no sense. It
9 made more sense to increase the amount of petroleum distillates.

10
11 The Examiner has stated that it would have been a simple matter of testing for a
12 formulation chemist to determine what level of surfactant was required to dissolve the acid
13 herbicide. This is true, but only in hindsight. No formulation chemist of ordinary skill in the art
14 would have tried to dissolve the herbicide in anything but more solvent, like petroleum
15 distillates.

16 To describe the ordinary skill in agricultural formulations, one can find numerous
17 references. In 1997, a multi-industry, international forum was held to discuss formulation
18 chemistry across several industries. Dr. Kozo Tsuji of Sumitomo provided an overview of the
19 state of the art in pesticide formulations. The proceedings from this forum are bound in a book
20 entitled **Formulation Science**.

21 Dr. Tsuji's chapter discloses the following details on pesticide formulations:

22
23 Page 57 cites potential improvements in EC's as:

24 "Use water, convert to solid formulations or change the solvents or the emulsifiers."
25

1 Nowhere does the **Formulation Science** of the day indicate that the emulsifiers (a.k.a
2 surfactants) might actually be one and the same as the solvent.

3
4 Page 60 shows a typical **emulsifiable in water formulation (EW)**:

5 Line 14 “Solid pesticides are dissolved at first in water-insoluble organic solvents, and
6 then dispersed in water.”

7
8 Page 61 describes a **suspension concentrate (SC)**. In these formulations, the pesticide is
9 suspended and not dissolved.

10
11 Page 62 describes a **Suspoemulsion (SE)**. In these formulations, one active ingredient is
12 formulated with traditional organic solvents in the same manner as an **EW**. This emulsifiable
13 concentrate is then suspended in another water based suspension that has been formulated in the
14 same manner as an **SC**.

15
16 Page 63 describes a **Microemulsion (ME)**. As with **EW** formulations, solid active ingredients
17 are first dissolved in organic water immiscible solvents. Emulsifiers (surfactants) are then added
18 to produce an emulsion.

19
20 Page 63-64 describes a **Multiple Emulsion**. This formulation type is produced in much the same
21 manner as **EW** formulations but said **EW** is further emulsifier in water to reduce formulation
22 toxicity.

Other formulations described in page 64-65 of this review are solid formulations and thus irrelevant.

Another reference to establish the “ordinary skill in the art” is found in Purdue University’s publication **Pesticides and Formulation Technology** (Purdue Pesticides Programs). This publication discusses on page 15 the normal formulation process for active ingredients. Specifically, an appropriate solvent is selected, and only then are appropriate emulsifiers (surfactants) selected.

Yet another reference is used to establish the “ordinary skill in the art” is found in Rhodia’s **Auxiliaries for agrochemical formulations**. In section 3-2, emulsifiable concentrate formulations are described. In short, for a liquid pesticide formulation that will mix with water, you normally have three components:

- The active ingredient
- A solvent
- Emulsifiers (surfactants)

The Examiner has a burden to demonstrate the motivation for one of ordinary skill in the art to increase the surfactant to the point where the acid herbicide fully dissolves.

- The only similar acid herbicide formulations available employed the use of traditional solvents to dissolve the active.
- No other formulations have been shown that use surfactants to fully solubilize **ANY** active ingredients.

- 1 • Descriptions of typical formulations in the field always employ a solvent of some
- 2 kind that is separate from optional surfactants.
- 3 • The examiner has not provided one instance of a combination of ANY herbicide
- 4 and ANY surfactant wherein the herbicide was fully solubilized in the surfactant,
- 5 or further which excluded a traditional solvent (i.e. water, petroleum distillate).

6

7 **Comments to the Examiner's Statements**

8 At page 3, lines 9-10, of the final Office Action mailed December 18, 2009, the Examiner

9 states, "[a] reference does not have to provide all possible scenarios to suggest an invention."

10 However, the Examiner must still take into account the reference as a whole. "[R]jections on

11 obviousness cannot be sustained by mere conclusory statements; instead, there must be some

12 articulated reasoning with some rational underpinning to support the legal conclusion of

13 obviousness." *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) quoting *In*

14 *re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Furthermore, the examiner cannot selectively pick

15 and choose from the disclosed parameters without proper motivation as to a particular selection.

16 The mere fact that a reference may be modified to reflect features of the claimed invention does

17 not make the modification, and hence the claimed invention, obvious unless the prior art

18 suggested the desirability of such modification. *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d

19 1430 (Fed. Cir. 1990); *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). Thus, it is impermissible

20 to simply engage in a hindsight reconstruction of the claimed invention where the reference itself

21 provides no teaching as to why the applicant's combination would have been obvious. *In re*

22 *Gorman*, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

1 Applying the Examiner's logic, no further patents should be granted on ANY herbicide,
2 because Policello suggests that herbicides might be useful. There MUST be some teaching of
3 the art to suggest its use. As stated above, merely mentioning two words in the same patent does
4 not teach anything about those two things.

5 At the bottom of page 3, of the final Office Action, the Examiner stated that Policello
6 teaches that other surfactants can be added to the composition. Nowhere does Policello TEACH
7 a composition **without** his silicone surfactant, and in fact, teaches away from such
8 compositions. The silicone surfactant is what his patent is all about (see the title, abstract,
9 summary of the invention, detailed description of the invention, the examples and the claims).
10 Again, the applicant's claimed invention is

11 a microemulsion-forming-concentrate **consisting of** a herbicide compound in
12 acid form and at least one surfactant, wherein the concentrate can be combined
13 with water to form a microemulsion wherein the herbicide in the acid form is 2,4-
14 dichlorophenoxyacetic acid or dicamba acid or a mixture thereof and wherein said
15 **surfactant consists of** . . . (emphasis added)
16

17 The silicone surfactant required by Policello is not included in the applicant's list of
18 surfactants. The applicant uses "consists of" language (closed language) which would exclude
19 the use of the silicone surfactant required by Policello.

20 At the top of page 5 of the final Office Action, the Examiner acknowledges that the
21 applicant claims use "consisting of" language. However, the Examiner than states in the middle
22 of page 5,

23 While the "consist of" language excludes in the claim excludes Policello's silicon
24 based surfactants, the Examiner still maintains that Policello's invention makes

1 obvious instant combinations consisting of acid herbicide plus instantly named
2 alcohol alkoxylate surfactants.

3 Again, nowhere does Policello TEACH a composition without his silicone surfactant, and
4 in fact, teaches away from such compositions. The silicone surfactant is what his patent is all
5 about (see the title, abstract, summary of the invention, detailed description of the invention, the
6 examples and the claims). In addition, as stated above, it is impermissible to simply engage in a
7 hindsight reconstruction of the claimed invention where the reference itself provides no teaching
8 as to why the applicant's combination would have been obvious.

9 At page 5, line 8 of the final Office Action, the Examiner states that Policello's abstract
10 discloses "composition does not require solvents". The abstract states, "[a] surfactant blend
11 comprising a polyalkyleneoxide polysiloxane and an organic compound [surfactant]....as an
12 adjuvant in pesticide sprays."

13 The Examiner incorrectly assumes that "pesticide sprays" could include 2,4-D acid. 2,4-
14 D acid is a solid and could not be sprayed without something to convert it to a liquid. This is
15 implied in Policello's term, "pesticide sprays". By using this term, and not simply "pesticide",
16 Policello acknowledges that the pesticide is already in a sprayable form, i.e. liquid, i.e. uses a
17 solvent. The abstract makes the applicant's point even more clear that the surfactant blend of
18 Policello was never contemplated as a solvent for the pesticide.

19 Again, at page 5, line 8 of the final Office Action, the Examiner stated that Policello at
20 column 2, line 65- col. 6, line 24 discloses "composition does not require solvents". Policello
21 discloses his unique surfactant blend and its use to provide a "dispersion of pesticide actives".

1 This makes the applicant's point again. A dispersion is not the same as a solution. At
2 col. 6, lines 18-20, Policello discloses that his unique surfactant blend can be used to "improve
3 the spreading of foliar applied pesticidal sprays". Policello includes 2, 4-D acid as one of the
4 pesticidal sprays that can be improved.

5 Again, Policello uses the term "pesticidal sprays" which implies that the pesticide was
6 already in a sprayable form, i.e. liquid. The surfactant has nothing to do with making the
7 pesticide sprayable. It is being used in this sense merely to spread the "pesticidal spray" on a
8 leaf surface.

9 A page 7, line 2 of the final Office Action, the Examiner refers to Policello, at column 9,
10 lines 19-23 and 32-36 and states that Policello discloses a range of the surfactant and pesticide
11 that fall within the applicant's claimed range.

12 The Examiner's attention is directed towards Policello column 9, lines 24 – 30. Policello
13 further describes the use ranges of the pesticide in terms of a "final application solution". This
14 "final application solution" is further described in column 9, lines 37 – 40. This is before he ever
15 discusses the addition of the surfactant, implying that the surfactant has nothing to do with the
16 sprayability of the pesticide active.

17 A page 8, lines 6-8 of the final Office Action, the Examiner states Policello teaches
18 combinations of acid herbicides to surfactants. Using this logic, no further patents should be
19 granted on ANY herbicide, because Policello suggests that herbicides might be useful. There
20 MUST be some teaching of the art to suggest its use. Merely mentioning two words in the same
21 patent does not teach anything about those two things.

1 VIII. CLAIMS

2 A copy of the claims involved in the present appeal is attached hereto as Appendix A. As
3 indicated above, the claims in Appendix A include the amendments filed by Applicant on May
4 26, 2009.

5 Applicant believes no additional fee is due with this response. However, if a fee is due,
6 please charge our Deposit Account No. 03-2775, under Order No. 00306-00355-US from which
7 the undersigned is authorized to draw.

Dated: April 26, 2010

Respectfully submitted,

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 10/784,343

1-90. (Cancelled)

91. (Previously presented) A microemulsion-forming-concentrate consisting of a herbicide compound in acid form and at least one surfactant, wherein the concentrate can be combined with water to form a microemulsion wherein the herbicide in the acid form is 2,4-

diclorophenoxyacetic acid or dicamba acid or a mixture thereof and wherein said surfactant consists of

Alcohol alkoxylate,

Alcohol alkoxylate sulfate,

Alkylphenol alkoxylate,

Alkanolamide,

Alkylaryl sulfonate,

Amine oxide,

Betaine,

Block polymers of ethylene and propylene oxide,

Carboxylated alcohol or alkylphenol alkoxylate,

Diphenyl sulfonate,

Ethoxylated amine,

Ethoxylated fatty acid,

Ethoxylated fatty ester and oil,

Ethylene carbonate,

Fatty ester,

- 1 Glycerol ester,
- 2 Phosphate ester surfactant,
- 3 Sarcosine,
- 4 Sorbitan,
- 5 Sucrose,
- 6 Glucose,
- 7 Sulfate of alkoxylated alkylphenol ,
- 8 sulfonate of alkoxylated alkylphenol,
- 9 Sulfate of alcohol or
- 10 Tristyrylphenol Alkoxylate.
- 11 92- 93 canceled
- 12 94. (Previously Presented) The concentrate of claim 91 consisting of from 15 to 20 parts by
- 13 weight of said herbicide compound in acid form, and from 80 to 85 parts by weight of said
- 14 surfactant.
- 15 95. (Previously Presented) The concentrate of claim 91 consisting of 20 parts by weight of
- 16 said herbicide compound in acid form, and 80 parts by weight of said surfactant.
- 17 96. (Previously presented) A microemulsion-forming-concentrate consisting of a herbicide
- 18 compound in acid form and at least one surfactant, wherein the concentrate can be combined
- 19 with water to form a microemulsion wherein the herbicide in the acid form is 2,4-
- 20 dichlorophenoxyacetic acid or dicamba acid or a mixture thereof and wherein said surfactant is
- 21 selected from the group consisting of C₁₁ alcohol (3EO) ethoxylate, nonylphenol (6EO)

1 ethoxylate, polyoxyethylene (20) sorbitan monolaurate, C₁₁ alcohol (6EO) ethoxylate phosphate
2 ester and mixtures thereof.

3 97. (Previously presented) The concentrate of claim 91 consisting of: 80 parts by weight
4 surfactant, 20 parts by weight herbicide compound in acid form selected from the group
5 consisting of 2,4-dichlorophenoxyacetic acid, dicamba acid and mixtures thereof.

6 98. (Previously presented) A microemulsion-forming-concentrate consisting of a herbicide
7 compound in acid form and at least one surfactant, wherein the concentrate can be combined
8 with water to form a microemulsion wherein the herbicide in the acid form is 2,4-
9 dichlorophenoxyacetic acid or dicamba acid or a mixture thereof and wherein the concentrate
10 consists of from about 25 to about 30 parts by weight 2,4-dichlorophenoxyacetic acid, and from
11 about 70 to about 75 parts by weight of said surfactant selected from the group consisting of a
12 C₁₁ alcohol (3EO) ethoxylate, C₁₁ alcohol (6EO) ethoxylate phosphate ester and mixtures
13 thereof.

14 99. (Previously presented) A microemulsion comprising the microemulsion-forming-
15 concentrate as claimed in claim 91 and water.

16 100. (Previously presented) A method of applying a herbicide, the method comprising:
17 preparing the microemulsion-forming-concentrate as claimed in claim 91, diluting the
18 microemulsion concentrate with water to form a microemulsion and then applying the
19 microemulsion to a plant.

20 101. (Previously presented) The method of claim 100, further comprising applying the
21 herbicide composition to a plant to control plant growth, while the herbicide compound is in acid
22 form.

102. (Previously presented) A method of preparing the microemulsion-forming-concentrate as claimed in claim 91, the method comprising combining said herbicide compound in acid form with said surfactant, to produce a microemulsion-forming-concentrate that can be combined with water to form a microemulsion.

103. (Previously presented) A method of preparing a microemulsion, the method comprising: preparing the microemulsion-forming-concentrate as claimed in claim 91, by a method comprising combining said herbicide compound in acid form with said surfactant to produce a microemulsion-forming-concentrate that can be combined with water to form a microemulsion, and combining the microemulsion-forming-concentrate with water to form a microemulsion.

104. (Previously presented) A microemulsion-forming-concentrate consisting of a herbicide compound in acid form and surfactant, wherein the concentrate can be combined with water to form a microemulsion and wherein the herbicide in the acid form is 2,4-dichlorophenoxyacetic acid and said surfactant of

Alcohol alkoxylate,

Alcohol alkoxylate sulfate,

Alkylphenol alkoxylate,

Alkanolamide,

Alkylaryl sulfonate,

Amine oxide,

Betaine,

Block polymers of ethylene and propylene oxide,

Carboxylated alcohol or alkylphenol alkoxylate,

Diphenyl sulfonate,

Ethoxylated amine,

Ethoxylated fatty acid,

Ethoxylated fatty ester and oil,

Ethylene carbonate,

Fatty ester,

- 1 Glycerol ester,
- 2 Phosphate ester surfactant,
- 3 Sarcosine,
- 4 Sorbitan,
- 5 Sucrose,
- 6 Glucose,
- 7 Sulfate of alkoxylated alkylphenol ,
- 8 sulfonate of alkoxylated alkylphenol,
- 9 Sulfate of alcohol or
- 10 Tristyrylphenol Alkoxyate.

1 **APPENDIX B**

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1. Reflex label

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2. Declaration executed May 13, 2008 by Johnnie Roberts

5

3. **Formulation Science** 1997

6

4. **Pesticides and Formulation Technology**

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5. Auxiliaries for Agrochemical Formulations

8

6. Declaration executed August 29, 2005 by Johnnie Roberts

1 **APPENDIX C**

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3 There are no related proceedings referenced in II. above, hence copies of decisions in
4 related proceedings are not provided.

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